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STAAS & H	ALSEY LLP		KLINGER, SCOTT M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)	W
•	09/812,850	IWATA ET AL.	
Office Action Summary	Examiner	Art Unit	
	Scott M. Klinger	2153	
The MAILING DATE of this communication ap Period for Reply	pears on the cover sheet with the o	orrespondence addres	SS
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a rep - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailir earned patent term adjustment. See 37 CFR 1.704(b).	136(a). In no event, however, may a reply be tirely within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE	nely filed  /s will be considered timely.  I the mailing date of this commu  ID (35 U.S.C. § 133).	nication.
Status			
1) Responsive to communication(s) filed on 21 M	s action is non-final. ance except for formal matters, pro		erits is
Disposition of Claims			
4) Claim(s) 1-20 is/are pending in the application 4a) Of the above claim(s) is/are withdra 5) Claim(s) is/are allowed. 6) Claim(s) 1-20 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/o	over election requirement.	<b>E</b> vo <b>m</b> inor	
10) The drawing(s) filed on is/are: a) acceptable acceptable and acceptable acceptable and acceptable ac	e drawing(s) be held in abeyance. Se ction is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.	` '
Priority under 35 U.S.C. § 119			
a) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority documen 2. Certified copies of the priority documen 3. Copies of the certified copies of the priority documen application from the International Burea * See the attached detailed Office action for a list	ts have been received. ts have been received in Applicationity documents have been receive nu (PCT Rule 17.2(a)).	ion No ed in this National Staç	ge
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail D  5) Notice of Informal F  6) Other:		·)

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### **DETAILED ACTION**

Claims 1-20 are pending.

### **Priority**

A claim for foreign priority has been made. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. The effective filing date for subject matter in the application is 13 October 2000.

### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10 and 12-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 10 and 12-20 recite the limitation "said <u>portable</u> server division". There is insufficient antecedent basis for this limitation in the claims.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 recites "said intermediate data file is created by separating a hierarchy of an image for an element of green of a color image from other hierarchies of images for elements of colors other than green." It is unclear to the examiner what is being claimed.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims are rejected under 35 U.S.C. 102(e) as being anticipated by Kikinis (U.S. Patent Number 6,553,410, hereinafter "Kikinis"). Kikinis discloses tailoring data and transmission protocol for efficient interactive data transactions over wide-area networks. Kikinis shows,

### In referring to claims 1 and 4,

A server division for transmitting and receiving book-type contents having page-by-page
information containing at least either images or characters and a viewer division for
displaying said book-type contents transmitted from said server division page by page:

"FIG. 2 is a diagrammatical illustration of hand-held computer 13, Proxy-Server 19, and WEB server 23 from FIG. 1 showing additional detail. In FIG. 2, computer 13 is shown connected directly to Proxy-Server 19, but could be connected by a number of ways, as is described more generally above." (Kikinis, col. 6, lines 18-23)

Kikinis, Fig. 4 shows the operation of the viewer division 13 and server division 19. Step 103 shows the data consists of text and images.

### In referring to claim 5,

 A viewer division for displaying book-type contents containing at least either images or characters which are sent wirelessly from a server division page by page:

Kikinis, col. 6, lines 18-23 (see full quote above)

"A proxy server 1500 operating in a network 1501 according to an embodiment of the present invention accesses data from legacy systems 1530 and 1531 as well as from conventional WEB sources 1520 and 1521. Both legacy systems have a virtual connection to the proxy server, which then converts their input into HTML pages. These

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may be sent on to normal WEB clients such as PC/Workstation 1510, or to client devices such as wireless UTC (Ultra-Thin-Client) 1502." (Kikinis, col. 28, lines 41-51)

In referring to claim 12 (as understood),

- Said viewer division has a compressed data decompressing function, wherein a page image in which a page constitutes a unit is data compressed at said server division:

  "At step 101 the Proxy-Server converts all of the jpg files to a dithered bitmap format according to information associated with the user ID received from the hand-held at log-on. This ID establishes the size and resolution of the hand-held's display, for example, and the bitmap created from the jpg files is scaled to the hand-held's display." (Kikinis, col. 11, lines 22-27)
- After transferring said compressed image, said transferred compressed image is expanded
  for display by said compressed data decompressing function at said viewer division.
   Kikinis, Fig. 4 shows displaying the compressed image at step 107.

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 3, 6, 9, 15-17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis in view of Nguyen (U.S. Patent Number 6,311,279, hereinafter "Nguyen").

In referring to claim 2, although Kikinis shows substantial features of the claimed invention, including:

• The system of claim 1 (see 102 rejection above)

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The viewer division comprises,

 A display panel for displaying said book-type contents page by page and a display memory for storing page-by-page information that is to be displayed on said display panel:

"Computer 13 has a CPU 25, a memory 27, video adapter circuitry 29, and modem 17 all communicating on bus 31. Video circuitry 29 drives a display 33. Memory 27 may be any of a number of types, such as flash, random access (RAM), read-only (ROM) or similar type, or a combination of these." (Kikinis, col. 6, lines 24-29)

- A first wireless interface module:
   Kikinis, col. 28, lines 41-51 (see full quote above)
- A first battery for supplying power to said display panel and said display memory:

"Even though the present invention is not limited to hand-held, battery-powered computers, but is applicable to personal computers of all types, the techniques of the invention are particularly advantageous when used with portable, battery powered devices as filed units, because they provide a way to accomplish relatively sophisticated computer operations with low-end, low-power CPUs." (Kikinis, col. 5, lines 57-63)

The server division comprises,

- A disk for storing said book-type contents:
   Kikinis, Fig. 4 shows a server 19 that receives book-type contents at step 89 and 97, it is inherently implied that said contents are stored on a disk.
- A second wireless interface module for performing wireless communications with said first wireless interface module of said viewer division:
  - Kikinis, col. 28, lines 41-51 (see full quote above). A system in which a server communicates with a wireless client inherently implies said server contains a wireless interface module
- A computer processing unit for creating page-by-page information from said book-type contents stored in said disk:
  - Kikinis, Fig. 4 shows computer processing unit 19 creates page-by-page information at step 99 from said book-type contents received at steps 89 and 97.

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However, Kikinis does not show a second battery for supplying power to said disk, said second wireless interface module and said computer-processing unit. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Kikinis as evidenced by Nguyen.

In analogous art, Nguyen discloses a portable computer system that has an internal modular uninterruptible power supply connected to the output of a main power supply, operated when the main power supply fails. Nguyen shows a second battery for supplying power to said disk, said second wireless interface module and said computer-processing unit: "In the embodiment shown, a modular internal uninterruptible power supply 100 incorporates a battery charger 106, a battery 108, and a DC-DC converter 110. At least one of the DC voltage outputs powers the battery charger 106. While AC power is available from AC power source 102, the battery charger 106 charges the battery 108. When the DC outputs of the main power supply 104 fail to maintain the correct voltage levels (due to loss of AC power, component failure, etc.), the DC-DC converter 110 uses the battery 108 to restore the DC outputs to their correct voltage levels until the battery is exhausted or AC power is restored." (Nguyen, col. 5, lines 28-38)

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of altering the system of Kikinis so as to provide a second battery for the server, such as taught by Nguyen, in order to provide uninterruptible power to the server.

In referring to claim 3, Kikinis in view of Nguyen shows,

- Said computer processing unit consisting of said server division converts a data file
  having at least one of a document layout, document information, character information
  and image information into an intermediate data file constituted by part of information in
  an image in which a page constitutes a unit and transfers said intermediate data file so
  converted to said viewer division using said second wireless interface:
  - Kikinis, Fig. 4 shows converting an HTML file (from step 89) into a new layout as an HTL file (in step 99) and sending said HTL file over the wireless interface in step 105.
- Said viewer division displays a page-by-page image by describing said intermediate data file in said display memory:

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Kikinis, Fig. 4 shows displaying the page-by-page image in step 107.

In referring to claim 6, Kikinis in view of Nguyen shows,

 Said intermediate data file is constituted by a plurality of hierarchies, whereby said intermediate data file is sequentially transferred hierarchy by hierarchy in transferring images:

"In various embodiments of the present invention, hand-held devices with CPUs having an ability to run at from 0.001 to 0.05 MIPs can serve as WEB browsers, displaying WEB pages and allowing users to initiate on-screen links and to input data into input fields." (Kikinis, col. 8, lines 34-38)

The intermediate data files allow the users to initiate on-screen links and are therefore constituted by a plurality of hierarchies

• Said viewer division describes said intermediate data file in said display memory every time said intermediate data is transferred thereto:

Kikinis, Fig. 4 shows displaying the intermediate data file in step 107.

In referring to claim 7, Kikinis in view of Nguyen shows,

• Said intermediate data file is configured by layering character information of original image information in accordance with the size of character font, so that priority in transfer is granted to intermediate data files in which larger-sized characters are layered:

The system of Kikinis translates an HTML file to HTL inherently implying layering character information of original image information in accordance with the size of character font

In referring to claim 9, although Kikinis in view of Nguyen shows substantial features of the claimed invention, Kikinis in view of Nguyen does not explicitly show priority in transfer is given to intermediate data files on said hierarchies of image portions. Nonetheless this feature is well known in the art and would have been an obvious design choice for the system disclosed by

Kikinis in view of Nguyen.

The instant application states, "This embodiment is based on the fact that images are more attractive to the eyes of human beings than characters." (Instant Application, col. 17, lines 7-9) The choice is based on the subjective assertion that images are more aesthetically pleasing then text.

In referring to claim 15 (as understood), Kikinis in view of Nguyen shows,

• Said viewer division has its own specific identification number, wherein said identification number is registered in advance in said server division:

"At step 61 the user logs on by entering a user name and password and the field unit identifies itself with its ID. At step 63 the Proxy-Server compares the entered password and ID with stored records, and derives a signature for the unit. At step 65 the Proxy-Server decides whether the information is correct." (Kikinis, col. 10, lines 47-52)

Said identification number is described in an intermediate data file, whereby when the
identification number of an intermediate data file sent to said viewer division coincides
with the identification number that said viewer division possesses, the data is described in
said display memory:

"If the Log-On is valid, control passes to step 67, and the Proxy-Server acknowledges the successful log-on to the hand-held unit at step 69." (Kikinis, col. 10, lines 52-54)

In referring to claim 16 (as understood), Kikinis in view of Nguyen shows,

Said viewer division has its own specific identification number, wherein said identification number is registered in advance in said server division:
 Kikinis, col. 10, lines 47-52 (see full quote above)

Said identification number is described in an intermediate data file, whereby when the
identification number of an intermediate data file sent to said viewer division coincides
with the identification number that said viewer division possesses, hierarchical data on a
lower layer is described in said display memory:

Kikinis, col. 10, lines 52-54 (see full quote above)

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In referring to claim 17 (as understood), Kikinis in view of Nguyen shows,

• A signal comprising the identification number of said viewer division is transmitted from

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said viewer division to said server division:

Kikinis, col. 10, lines 47-52 (see full quote above)

• When said signal is received at said server division, said signal is collated with the

identification number of a viewer registered therein and wherein when said collation

determines that said identification numbers coincide with each other, a publication signal

is described in an intermediate data file:

"An ID match when connecting a hand-held unit to the Proxy-Server provides the Proxy-

Server with information about the hand-held unit, such as CPU type and power, screen

size, type and resolution, presence of a pointer device, and sound capability." (Kikinis,

col. 8, lines 15-19)

Kikinis, col. 10, lines 52-54 (see full quote above)

In referring to claim 19 (as understood), Kikinis in view of Nguyen shows,

• A signal comprising the identification number of said viewer division is transmitted from

said viewer division to said server division:

Kikinis, col. 10, lines 47-52 (see full quote above)

• When said signal is received at said server division, said signal is collated with the

identification number of a viewer registered therein and wherein when said collation

determines that said identification numbers coincide with each other, a publication signal

is described in an intermediate data file:

Kikinis, col. 8, lines 15-19 (see full quote above), Kikinis, col. 10, lines 52-54 (see full

quote above)

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis in view of

Nguyen and in further view of Helfman (U.S. Patent Number 6,119,135, hereinafter "Helfman").

Although Kikinis in view of Nguyen shows substantial features of the claimed invention, Kikinis

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in view of Nguyen does not explicitly show priority in transfer is given to intermediate data files on said hierarchies of image portions. Nonetheless this feature is well known in the art and would have been an obvious design choice for the system disclosed by Kikinis in view of Nguyen as evidenced by Helfman.

In analogous art, Helfman discloses a method for passively browsing the Internet using images extracted from web pages. Helfman shows: "The system maintains a mapping list that maps the universal resource locator (URL) of the displayed web page images to the URL of the web page containing those images. When a user selects a displayed image, the user's browser is driven to the associated web page, so that the user can view the web page in its entirety." (Helfman, col. 1, lines 42-47)

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Kikinis in view of Nguyen so as to transfer an image of a web page before the text, such as taught by Helfman, in order to preview a web page without fully downloading the pages data.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis in view of Nguyen and in further view of Kunkel et al. (U.S. Patent Number 6,477,579, hereinafter "Kunkel"). Although Kikinis shows substantial features of the claimed invention, Kikinis does not show the viewer writes in said display memory for each address which is a certain interval away from a transferred intermediate data file. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Kikinis as evidenced by Kunkel.

In analogous art, Kunkel discloses an access system and method for providing interactive access to an information source through a networked distribution system. Kunkel shows storing HTML data from the hyperlinks in the current web page: "In the operation of the channel hyperlinking system 10, each of the headends 14 preferably pre-caches from the ISP 30, the HTML data pertaining to the channel hyperlinks associated with upcoming programming prior to the broadcasts, and stores this information in the cache 31." (Kunkel, col. 12, lines 45-49)

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Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Kikinis so as to pre-cache data that is an interval away from the intermediate data file, such as taught by Kunkel, in order to speed up the response to an activated link.

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Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis in view of Nguyen and in further view of Marmor (U.S. Patent Number 6,601,108, hereinafter "Marmor"). Although Kikinis in view of Nguyen shows substantial features of the claimed invention, including the system of claim 6 (see 103 rejection above), Kikinis in view of Nguyen does not show said intermediate data file is configured by converting character information into a binary image. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Kikinis in view of Nguyen as evidenced by Marmor.

In analogous art, Marmor discloses an automatic conversion system. Marmor shows said intermediate data file is configured by converting character information into a binary image: "In a preferred embodiment of the invention, data from the server which cannot normally be displayed on the client is converted, by the automatic converter, into image files for display on the client. Preferably, text data for which there is no available font on the client is converted in image data, for example GIF format data." (Marmor, col. 5, lines 8-13)

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Kikinis in view of Nguyen so as to convert character information into a binary image, such as taught by Marmor, in order to allow the client to display characters from an unsupported character set.

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Claims 13, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis in view of Jungck (U.S. Patent Number 6,728,785, hereinafter "Jungck").

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In referring to claim 13 (as understood), although Kikinis shows substantial features of the claimed invention, including the system of claim 1 (see 102 rejection above), Kikinis does not show said viewer division has a compressed data decompressing function, wherein an intermediate data file in which a page image, in which a page constitutes a unit, is layered is data compressed at said server division, wherein after said compressed intermediate data file has been transferred, said transferred compressed image is expanded by said compressed data decompressing function at said viewer division. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Kikinis as evidenced by Jungck.

In analogous art, Jungck discloses a system and method for dynamic compression of data. Jungck shows compressing data at the server division and decompressing the data at the viewer division: "The present invention intercepts web page requests then compresses the web page, which is usually an HTML file, and sends it to the requesting workstation in the compressed format. The requesting workstation then decompresses the web page before processing the web page." (Jungck, col. 3, line 67 – col. 4, line 5)

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Kikinis so as to compress data at the server and decompress the data at the viewer, such as taught by Jungck, in order "to reduce the time required to transfer files." (Jungck, col. 1, lines 18-19)

In referring to claim 18 (as understood), although Kikinis shows substantial features of the claimed invention, including:

- The system of claim 12 (see 102 rejection above),
- Said viewer division has its own specific identification number, wherein said identification number is registered in advance in said portable server division:
  - Kikinis, col. 10, lines 47-52 (see full quote above)
- Said identification number is described in an intermediate data file, whereby when the identification number of an intermediate data file sent to said viewer division coincides

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with the identification number that said viewer division holds a notification is displayed on the viewer division:

Kikinis, col. 10, lines 52-54 (see full quote above)

However Kikinis does not show a compressed file is decompressed when the identification number is determined to be valid. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Kikinis as evidenced by Jungck.

In analogous art, Jungck discloses a system and method for dynamic compression of data. Jungck shows compressing data at the server division and decompressing the data at the viewer division: *Jungck*, col. 3, line 67 – col. 4, line 5 (see full quote above)

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Kikinis so as to compress data at the server and decompress the data at the viewer, such as taught by Jungck, in order "to reduce the time required to transfer files." (Jungck, col. 1, lines 18-19)

In referring to claim 20 (as understood), Kikinis in view of Jungck shows,

- A portable electronic viewer system as set forth in claim 13 (see 103 rejection above)
- Said viewer division has its own specific identification number, wherein said identification number is registered in advance in said portable server division:

  Kikinis, col. 10, lines 47-52 (see full quote above)
- Said identification number is described in an intermediate data file, whereby when the
  identification number of an intermediate data file sent to said viewer division coincides
  with the identification number that said viewer division holds, a compressed data is
  decompressed:

Kikinis, col. 10, lines 52-54 (see full quote above), a system that compresses data, sends it over a wireless interface and then decompresses said data inherently implies a compressed data is decompressed when information is sent from the server to the viewer.

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Claim 14 (as understood) is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis in view of Nguyen and in further view of Betts (U.S. Patent Number 4,734,920, hereinafter "Betts"). Although Kikinis in view of Nguyen shows substantial features of the claimed invention, including the system of claim 3 (see 103 rejection above), Kikinis in view of Nguyen does not show a plurality of said wireless interface modules. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Kikinis in view of Nguyen as evidenced by Betts.

In analogous art, Betts discloses a high speed modern for multiple communication circuits. Betts, Fig. 1 shows a plurality of line interfaces on the client side (30, 34) and on the server side (35, 36).

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Kikinis in view of Nguyen so as to have a plurality of said wireless interface modules, such as taught by Betts, in order to provide a high speed connection using multiple slow communication connections.

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#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott M. Klinger whose telephone number is (703) 305-8285. The examiner can normally be reached on M-F 7:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott M. Klinger Examiner Art Unit 2153

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